



Electrical Engineering Safety

Decision Sheet 12.1

Low voltage switchgear – Distribution boards and motor control centres

A basis for consistent application of Electrical Engineering Safety issues at NSW mines

Decision Sheets are developed by the Inspectors of Electrical Engineering in response to issues raised or questions asked by others in the DPI, in particular Mine Safety Operations and from our external clients. They are for use by any staff in Mine Safety Operations, but primarily by Electrical Engineering staff. They can be distributed externally to the DPI.

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Preamble

Low voltage electrical switchgear is often in the form of distribution boards (DB) and motor control centres (MCC). Non - electrically qualified workers, generally plant



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operators and fitters, often require access to this type of switchgear for resetting overload trips and isolation purposes.

Issue

Often low voltage switchgear enclosures can be opened and exposed energised conductors are present. Generally non-electrically qualified workers will not have the knowledge to recognise hazards presented by these exposed energised conductors.

Position

Where non-electrically qualified workers are required to have access to existing low voltage electrical switchgear that requires the opening of enclosure doors, ALL exposed energised conductors shall be shielded from intentional and inadvertent contact. The shielding can be earthed barriers or insulated barriers. The barriers shall be permanently fixed in position and shall have warning signs or labels attached identifying that there are energised conductors at a specified voltage behind the barrier.

Where new electrical switchgear is to be installed and it is intended for non-electrically qualified workers to operate the switchgear for any purpose, the switchgear must only be operable from external to the switchgear enclosure.

Where only electrically qualified persons are permitted to have access, the doors or covers of the enclosure shall be bolted or locked in position and signs or labels attached that prohibit unauthorised access.

